

REMARKS

In the accompanying amendment, Claims 506, 530, 551, 557, 583, 592, and 599 have been amended. Further, new claims 616 to 625 have been added. Thus, claims 506 to 625 are currently pending. Support for the amendments to the claims may be found in the written description, drawing, and claims, as originally filed. On account of the foregoing listed support for the amendments to the claims, it is respectfully submitted that the amendments to the claims do not add new matter.

OBJECTION TO THE SPECIFICATION

In paragraph 6, page 2 of the Office Action mailed October 3 2005, the Examiner has objected to the specification on account of minor informalities. In response to the objection to the specification, Applicant has filed a substitute specification, as a replacement for the substitute specification filed on May 5 2004. By way of explanation, the substitute specification that was filed on May 5 2004 was filled in error. The substitute specification being filed herewith is clearly based on the specification that was originally filed with the subject application, and thus should have been filed on May 5 2004. Save for labeling Figures 1 to 6 as "PRIOR ART", the accompanying substitute specification addresses all informalities pointed out by the Examiner. Regarding the Examiner's requirement that Figures 1-6 labeled as "PRIOR ART", the Applicant respectfully submits that since the subject application is a continuation of US Serial No 094/208,741 filed December 8 1998, Figures 1-6 are not

prior art. Accordingly, the Examiner is respectfully requested to withdraw her objection to Figures 1-6.

OBJECTION TO THE DRAWINGS

In paragraph 7 of the Office Action mailed October 3 2005, the Examiner has objected to Figures 1-6, requiring that these Figures be labeled "PRIOR ART". As noted above, since the subject application is a continuation of US Serial No. 094/208,741 filed December 8 1998, Figures 1-6 are not prior art. Accordingly, the Examiner is respectfully requested to withdraw her objection to the drawings.

CLAIM OBJECTIONS

The Examiner has objected to claim 557 for being dependent on claim 534 which was cancelled. In response, the Applicant has amended claim 557 to remove its dependency on claim 534. Accordingly, the Examiner is respectfully requested to withdraw her objection to claim 557.

CLAIM REJECTIONS UNDER 35 USC § 112

Claims 506-533, 535-541, 543, 545-557, 559-586, 588-596, 599-607, and 609-615 have been rejected by the Examiner under 35 USC 112, for failing to comply with the written description requirement. In this regard, the Examiner has stated that

Claims 506,530,540,543,551,559,583,593,599 recite the limitation stack-based instructions and register-based instructions are executing in an execution unit. The present application does not describe this limitation. The present application describes a hardware accelerator that converts stack-based instructions into register-based instructions. Nowhere in the specification describes that only one execution unit executes both stack-based and register-based instructions. All other claims are depended claims of the claims 506,530,540,543,551,559,583,593,599 and have the same limitations as the independent claims thus rejected under the same reason.

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Applicant respectfully disagrees with the Examiner's above argument, and submits that the specification, as originally filed, does support the limitation of "stack-based instructions and register-based instructions executing in an execution unit", at various places. For example, referring to the embodiment illustrated in Figure 3 of the drawings, and described in the written description, it will be seen that execute logic 26c executes both stack and register-based instructions. For this embodiment, the stack-based instructions are processed by accelerator 42 up stream of the execute logic 26c. Thus, the limitation of "executing the stack-based instructions and register-based instructions in an execution unit as recited in claim 506 is fully supported by Figure 3 of the drawings, and the written description.

Based on the foregoing Examiner is respectfully requested to withdraw her rejection of claim 506.

Claims 530,559,583,593 and 599 each include limitations similar to the above discussed limitation of claim 506. Accordingly, it is respectfully submitted that each of

claims 530,559,583,593,599, and their respective dependent claims are not objectionable under 35 USC § 112, first paragraph.

Regarding claim 543 this claim includes the limitation of “processing instructions including stack-based instructions and register-based instructions, in a CPU ...”, which limitation the Applicant respectfully submits is described in the specification at various places. For example, the embodiment described with reference to Figure 3 of the drawings in the specification as originally filed clearly supports stack and register-based instructions being executed in a CPU. Accordingly, it is respectfully submitted that claim 543 complies with the requirements of 35 USC §112, first paragraph.

Claim 551 recites “a central processing unit (CPU) having an execution unit and a register file, and being capable of processing instructions of a plurality of instructions sets including register-based instructions set and a stack-based instructions set ...”. Applicant respectfully submits that the above limitation of claim 551 is supported by the specification at various places, for example, by Figure 3 and its associated description. Thus, it is respectfully submitted that claim 551 complies with the requirements of 35 USC § 112, first paragraph.

Based on the foregoing, the Examiner is respectfully requested to withdraw her rejection of claims 543,551, and their respective dependent claims.

Regarding claim 540, this claim does not recite that stack-based instructions and register-based instructions are executing in an execution unit. Accordingly, the Examiner is respectfully requested to reconsider her rejection of claim 540.

Although the Office Action mailed October 3 2005 indicates that claim 592 is rejected, the Examiner has made no specific argument in connection with the rejection of claim 592. Accordingly, Applicant is not able to respond to the rejection of claim 592 with any great particularity, save to say that claim 592 does not recite that stack-based instructions and register-based instructions are executing in an execution unit.

It is respectfully submitted that in view of the remarks set forth herein, all rejections have been overcome. All pending claims are now in condition for allowance, which is earnestly solicited. Authorization is hereby given to change our Deposit Account 503437 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such an extension.

Respectfully submitted,

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